

SPIDER 20.95

(all version)

IMPIANTO ELETTRICO General electric diagram

La norma IEC 60757 indica le abbreviazioni internazionali dei colori dei conduttori, come mostra la tabella sotto.

IEC 60757 norm indicates the international abbreviation for conductor colours, as shown below.

COLORS(en)		COLORI(ita)
black	bk	nero
brown	bn	marrone
red	rd	rosso
orange	og	arancio
yellow	ye	giallo
green	gn	verde
blue	bu	blu
violet	vt	viola
gray	gy	grigio
white	wh	bianco
pink	pk	rosa
turquoise	tq	turchese

Schema aggiornato alle nuove normative Europee EN280:2013 ed EN13849-1
Updated according to the European laws EN280:2013 and EN13849-1

03/02/2021- Aggiunto relè preriscaldamento candelette bordo motore, eliminato dal q.base. Eliminato temporizzatore Kubota.

17/02/2020- Eseguite correzioni su inversione direzione movimenti aerei

22/01/2020- invertita la descrizione per rot. DX e SX per versione definitiva adesivi. Spostata YV125 in parallelo a YV127

29/01/2019- invertita la descrizione per rot. DX e SX per scambio tubi corrado

SCH_01 - Aggiunti m12 in navicella che sostituiscono il pressacavo

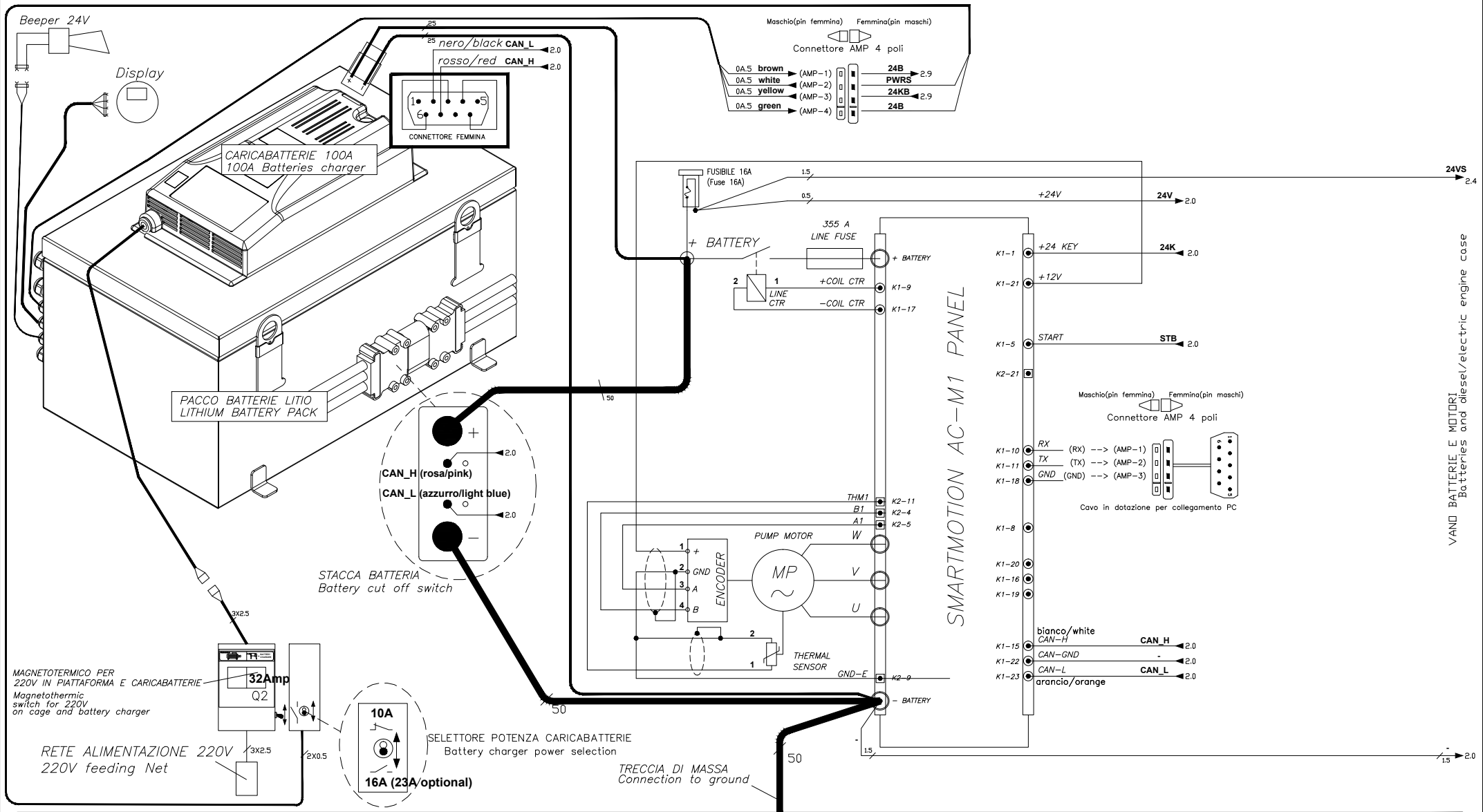
PLATFORM
BASKET

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TIPOLOGIA	SCHEMA FUNZIONALE	DATA	16.02.2021
MACCHINA/MODELLO	SPIDER 20.95	DISEGNATORE	S.S
DENOMINAZIONE	IMPIANTO ELETTRICO (tutte le versioni)	GRUPPO	ELECTRIC (90)
DIS. N. 4969060001_SCH_01			

COLLEGAMENTO BATTERIA AL LITIO Lithium battery connection

CONVERTITORE
24V-->12V
24V-->12V
converter



CARCASSA TELAI DELLA MACCHINA (Chassis/Ground of the machine)

VANO BATTERIE E MOTORI
Batteries and diesel/electric engine case

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE. This DRAW is property of the Company which protects its rights according to the law

MOTORE ALIMENT. MOTORE 220V
ELETTR.110V-220V e LINEA NAVICELLA
110V-220V Electric 220V Electric motor
motor and cage line feeding

INT.MAGN.TER.DIFF.
MOTORE A 220V
220V motor safe
switch

0

1

2

3

4

5

6

7

8

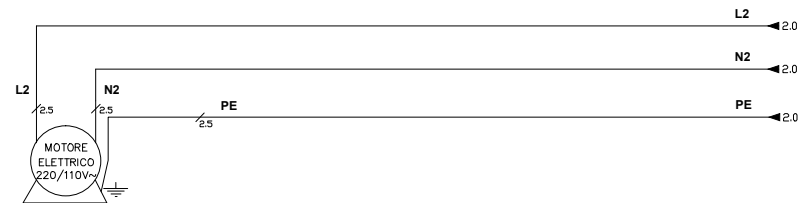
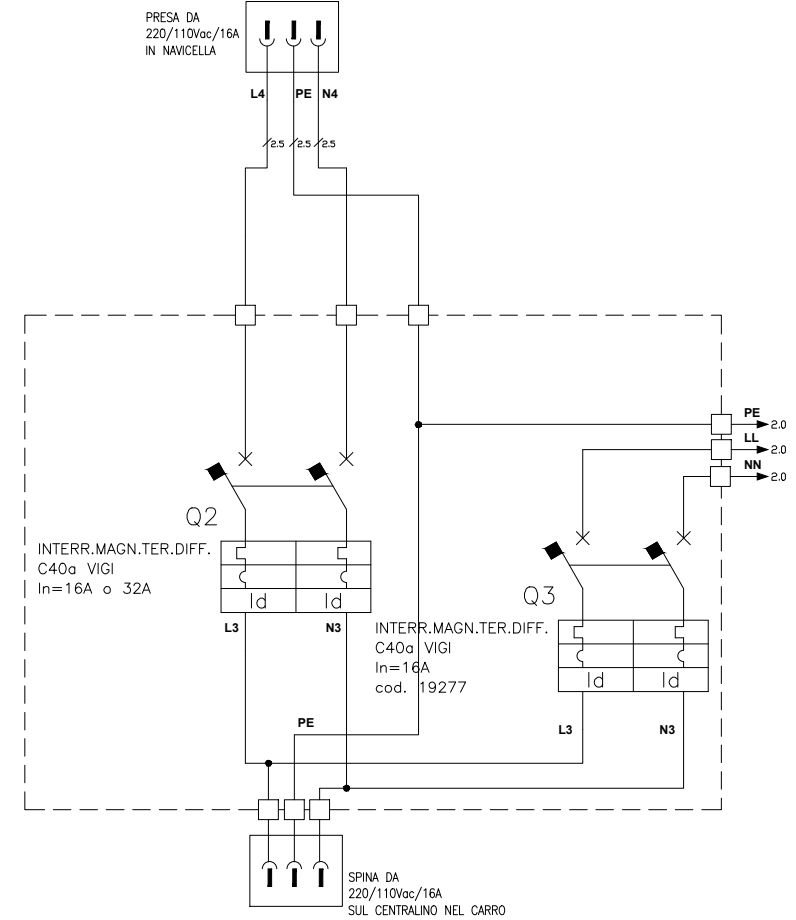
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VANO BATTERIE E MOTORI
Batteries and diesel/electric engine case

PRESA DA
220/110Vac/16A
IN NAVICELLA

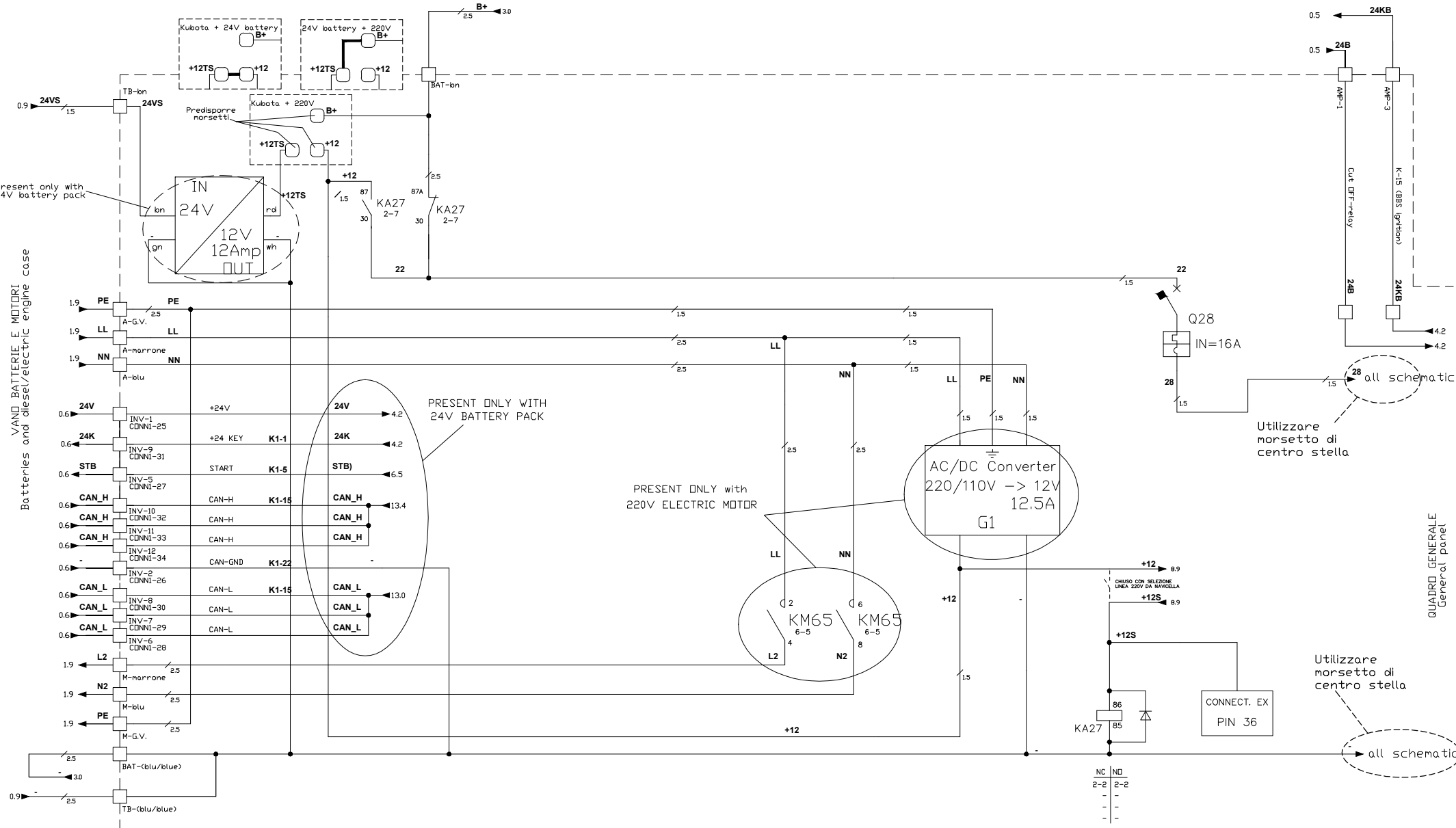


L4 PE N4
/2.5 /2.5 /2.5



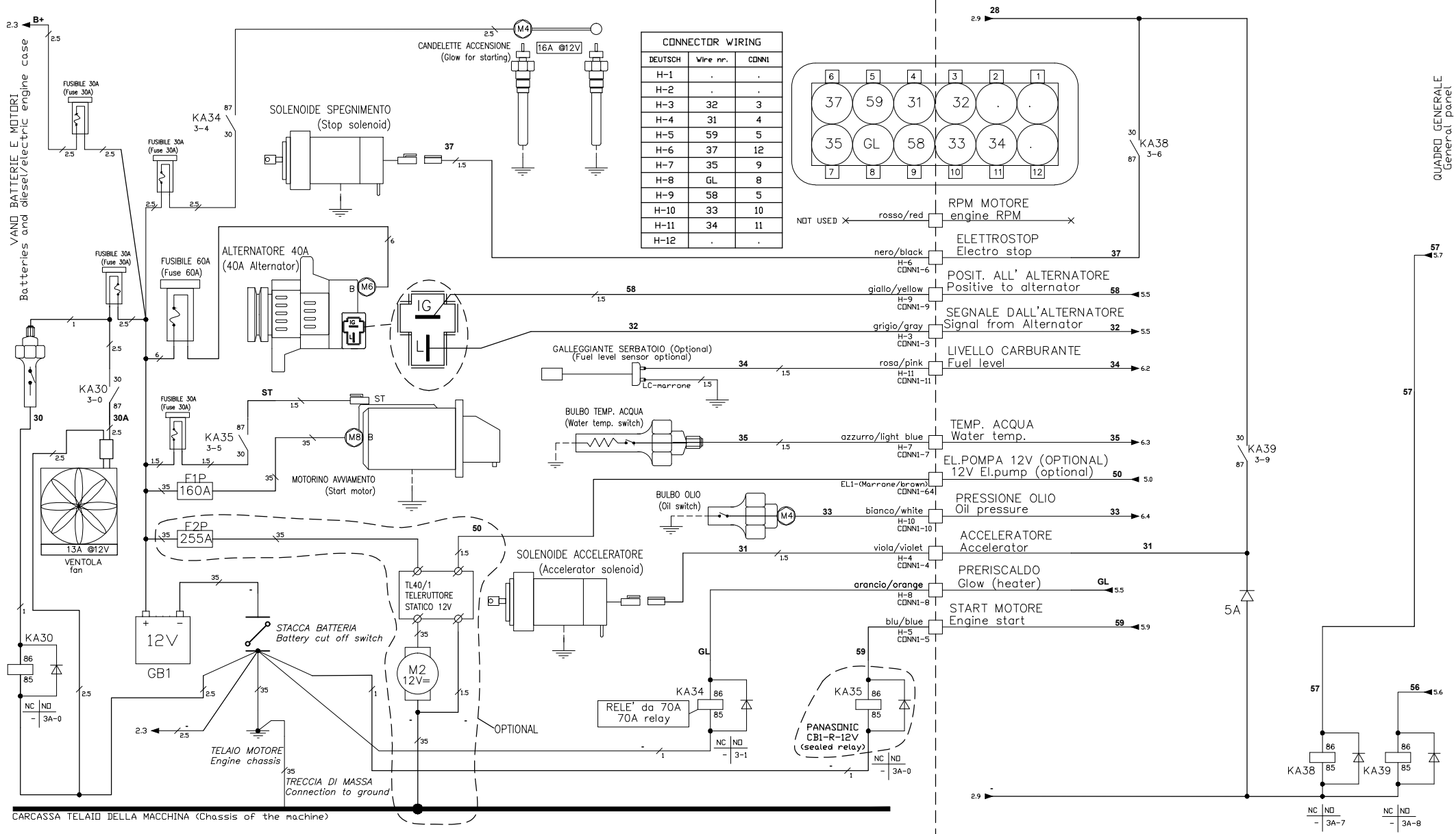
QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA'
CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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POSITIVO DA BATTER. AVVIAM. Positive from starting batteries	POSITIVO DA LINEA 220V Positive from 220V line			ACCENSIONE ALIM. 24V/12V Power supply for 24V/12V Converter	TELERUTTORE MOTORE IMPIANTO DA RETE 220V Contactor switch 220V motor	ALIMENTATORE ELETTRICO DA RETE 220V ALIMENTAZIONE relè Electric plant supplier from 220V line	RELE' SCAMBIO GENERALE General Switch	MAGNETOTERMICO GENERALE General Switch	RELE' GENERALE PACCO BATT. 24V General relay 24V battery pack
0	1	2	3	4	5	6	7	8	9



QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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ELETTROVENTOLA Electric fan 0	BATTERIA MOTORE DIESEL Diesel engine battery 1	MOTORE ELETTRICO 12V (OPTIONAL) 12V Electric motor (OPTIONAL) 2	MOTORINO AVVIAMENTO DIESEL Start-up diesel engine 3	4	CANDELETTE Glow 5	6	7	8	9
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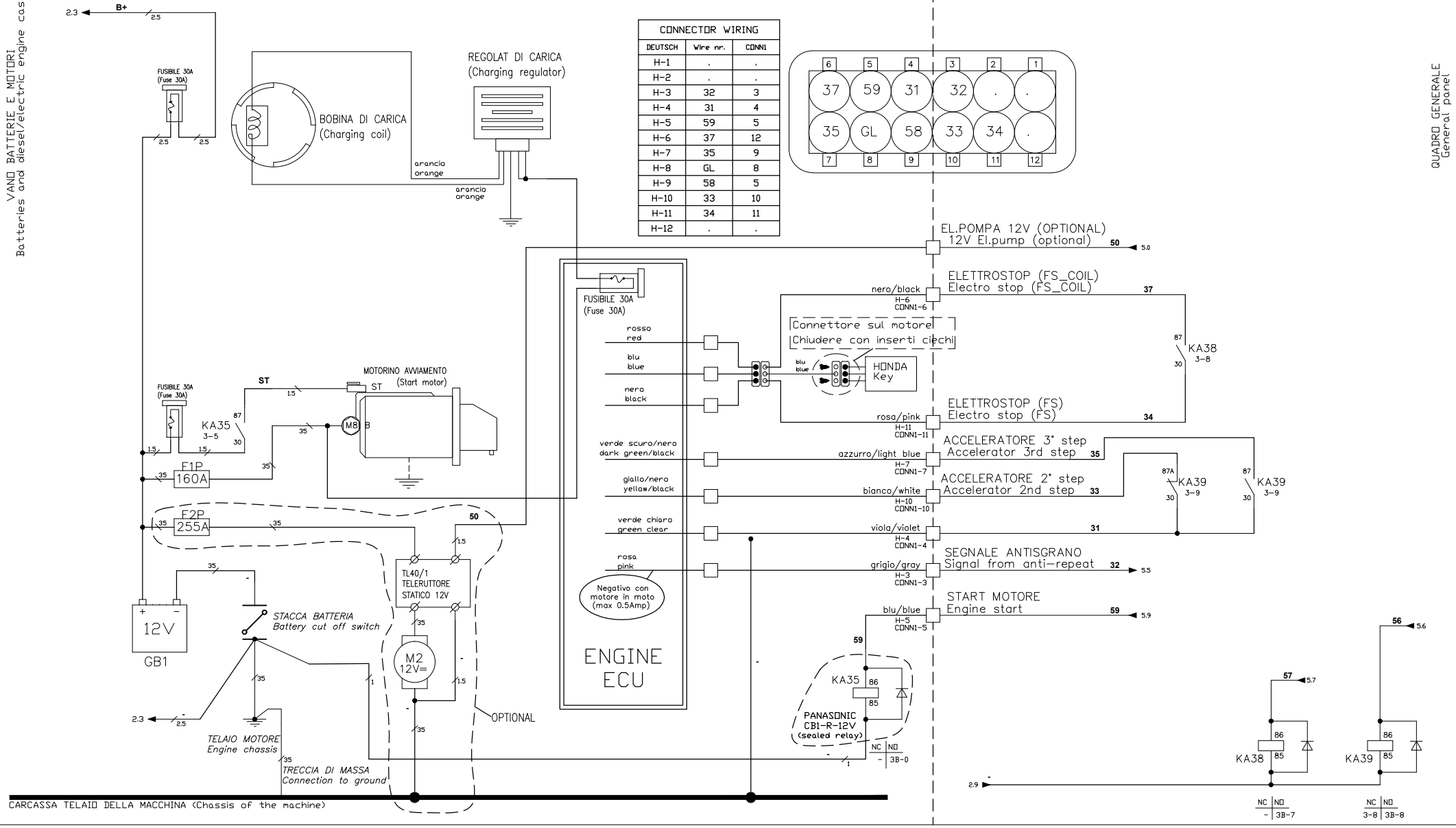
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QUADRO GENERALE
Generat panel

	BATTERIA MOTORE Engine battery	MOTORE ELETTRICO 12V (OPTIONAL) 12V Electric motor (OPTIONAL)	MOTORINO AVVIAMENTO Start-up engine					RELE' HONDA (SPEGNIMENTO) Honda Relay (turn off)	RELE' SOLENOIDE ACCELERATORE Relay for accelerator coil
0	1	2	3	4	5	6	7	8	9

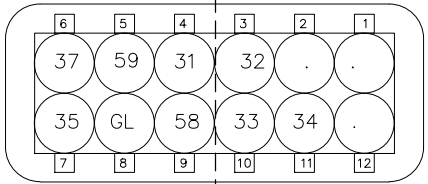
VAND. BATTERIE E MOTORI
Batteries and diesel/electric engine case

QUADRO GENERALE
General panel



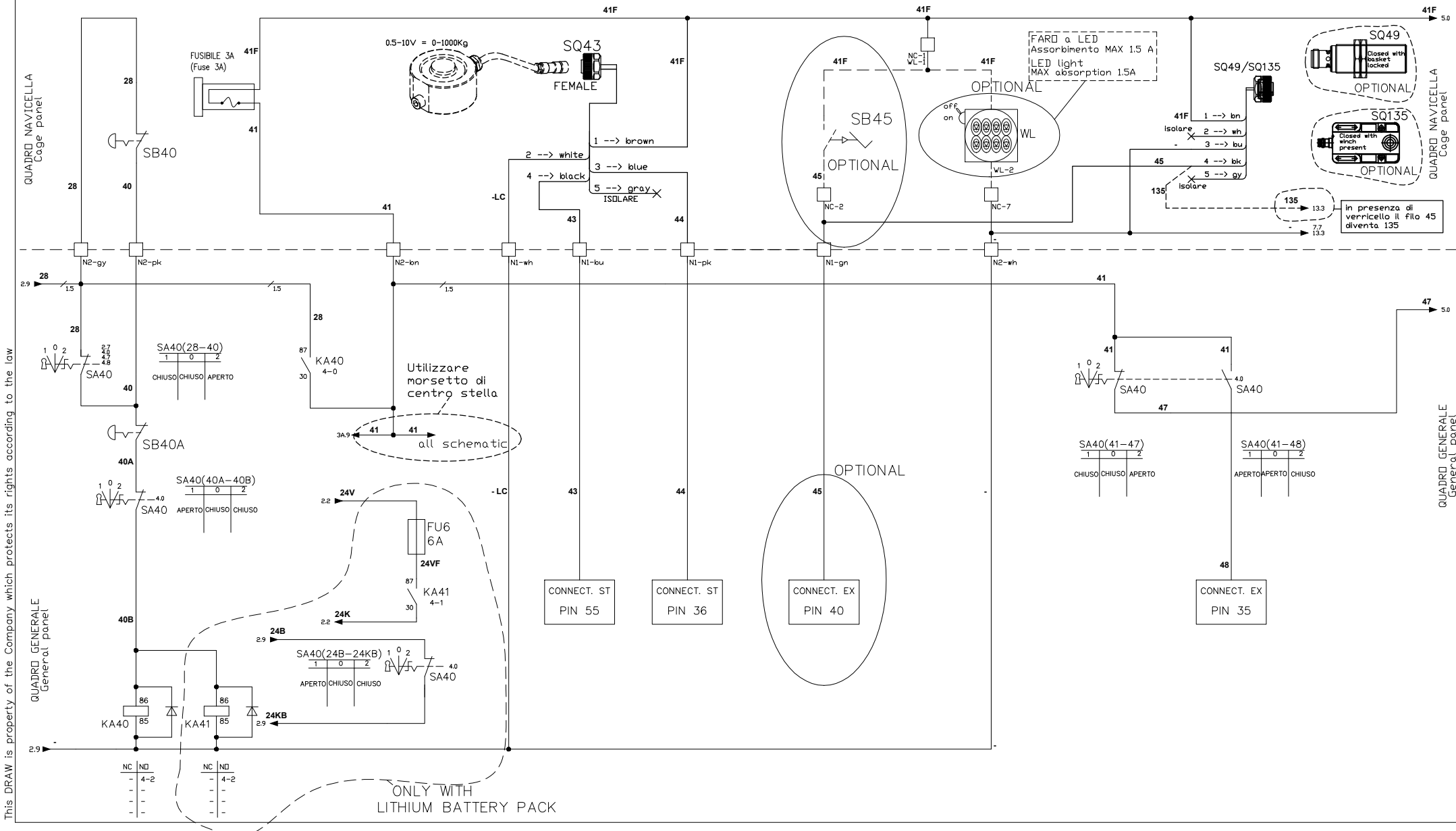
CONNECTOR WIRING

DEUTSCH	Wire nr.	CONNI
H-1	.	.
H-2	.	.
H-3	32	3
H-4	31	4
H-5	59	5
H-6	37	12
H-7	35	9
H-8	GL	8
H-9	58	5
H-10	33	10
H-11	34	11
H-12	.	.



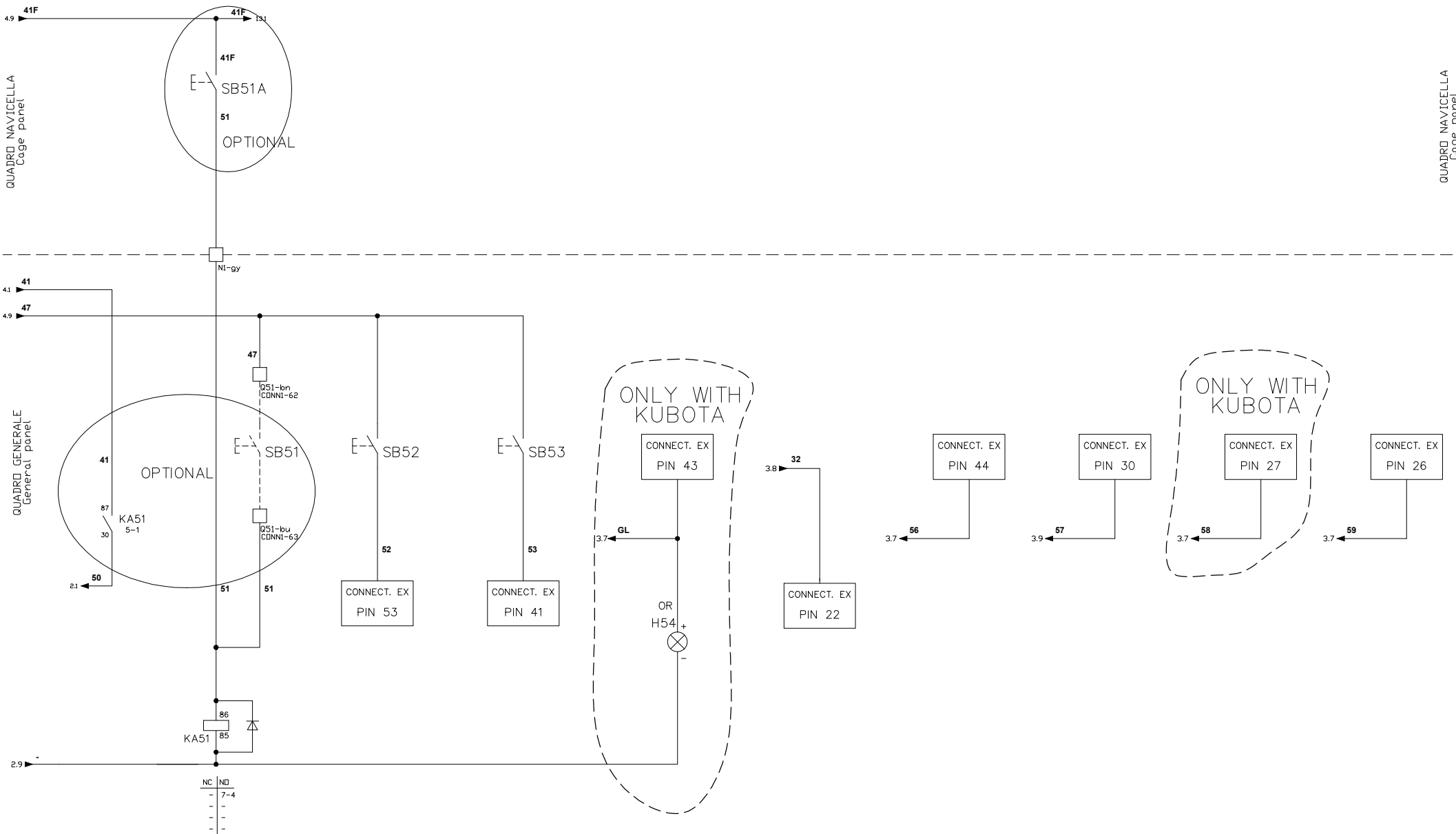
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SERIE EMERGENZE (RELE' ALIMENTAZ. GENERALE)	POSITIVO SOTTO CHIAVE INVERTER	SENSORE CARICO IN NAVICELLA 1	SENSORE CARICO IN NAVICELLA 2	PEDALE UOMO PRESENTE (optional)	FARO DI LAVORO (optional)	SELEZIONE COMANDI BASE	SELEZIONE COMANDI NAVICELLA	MICRO NAVICELLA INTERBLOCCATA	
Emergency series	General feeding relè	Inverter start key switch	Cage load sensor 1	Operator present pedal (optional)	Working lamp (optional)	Base commands selection	Cage commands selection	Cage locked sensor	
0	1	2	3	4	5	6	7	8	9



QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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COMANDO TELERUTTORE EL.POMPA 12V EMERGENZA Contactor for emergency el.pump	PULSANTE AVVIO DIESEL/220V DA TERRA Diesel/220V start button from ground	PULSANTE PRERISCALDO DA TERRA Glow (Heater) button from ground	PIA PRERISCALDO CANDELETTE DA TERRA Glow (Heater) lamp from ground	MOTORE IN MOTO Engine started signal	COMANDO ACCELER. MOT. A SCOPPIO Engine accelerator command	COMANDO SOLENOIDE SPEGNIMENTO Engine stop command	POSITIVO PER ALTERNATORE Output for alternator ignition	AVVIAM. MOTORE A SCOPPIO Engine START	
0	1	2	3	4	5	6	7	8	9



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QUADRO NAVICELLA
Cage panel

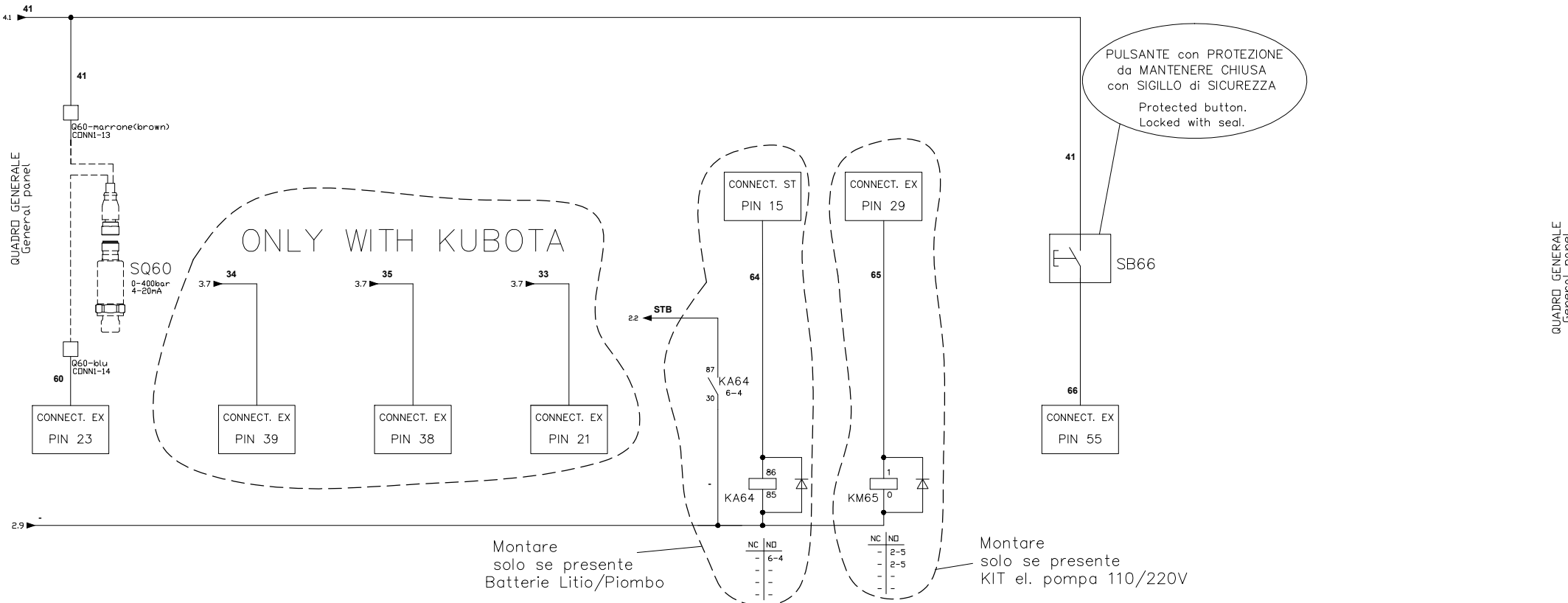
QUADRO GENERALE
General panel

NC	ND
-	7-4
-	-
-	-
-	-

0	1	2	3	4	5	6	7	8	9
PRESSOSTATO GENERALE Pressure sensor	INPUT CENTRAL. LIV. GASOLIO Fuel level signal to CPU	SEGNALAZ. TEMP. (KUBOTA) Max temperature (Kubota)	SEGNALE BULBO OLIO Oil bulb signal	SEGNALE COMANDO START INVERTER Inverter START command signal	TEL. MOT. ELETTR. IN MOTO Start electric motor	BYPASS SOVRACCARICO (SOLO EMERGENZA) Overload bypass (Emergency rescue)			

QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel



QUADRO GENERALE
General panel

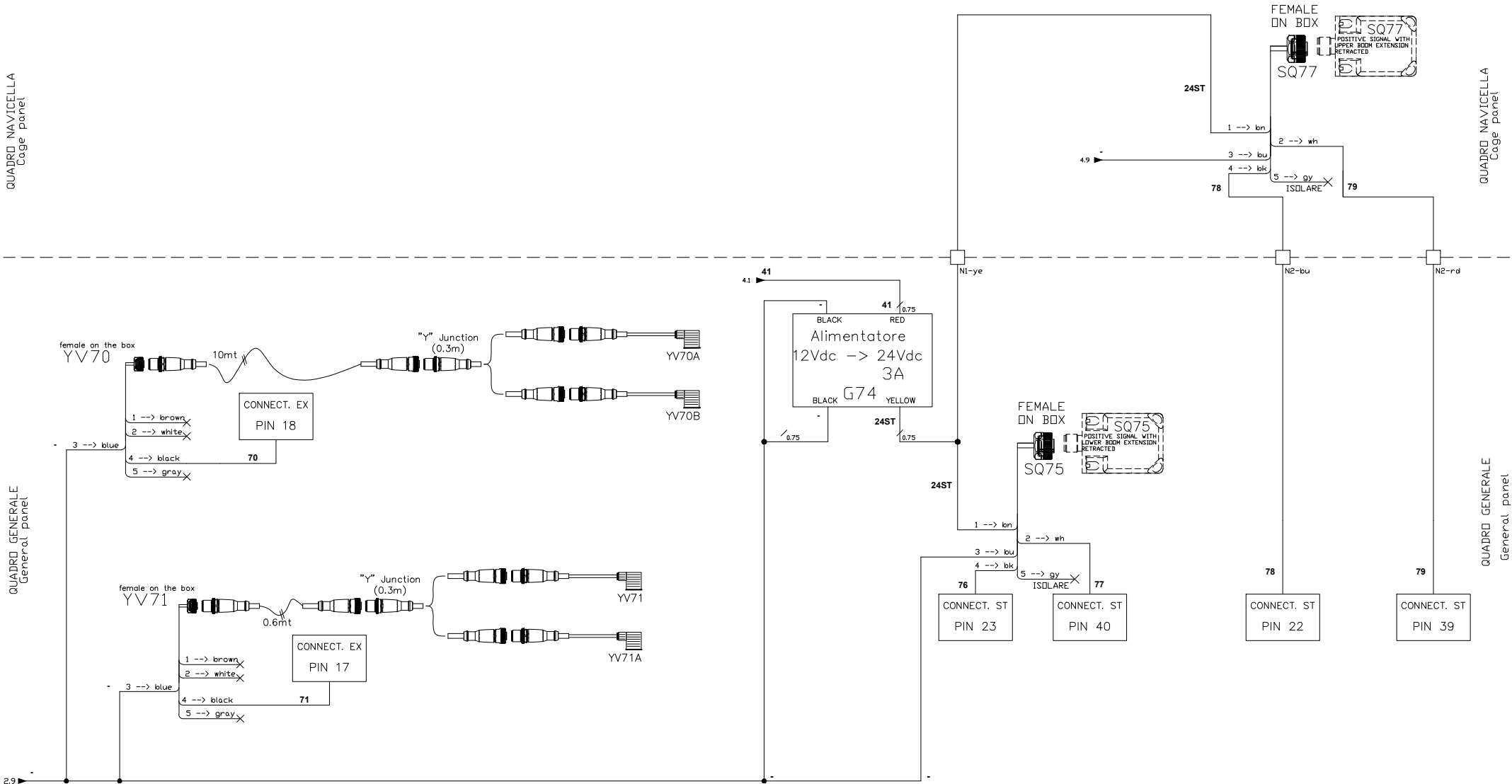
			COMANDO VALVOLA RIALLINEAM.TESTATA Boom alignment command valve	COMANDO VALVOLE SCAMBIO ROTAZ./BILAN Basket rot./Basket lev. exchange valve	ALIMENTATORE 12->24 PER INDUT.IFM 12->24V boom exten. IFM inductive sensors	SEGN.1 SFILO BRACCIO INFERIORE RIENTRATO Lower boom extension retracted sensor 1	SEGN.2 SFILO BRACCIO INFERIORE RIENTRATO Lower boom extension retracted sensor 2	SEGN.1 SFILO BRACCIO SUPERIORE RIENTRATO Upper boom extension retracted sensor 1	SEGN.2 SFILO BRACCIO SUPERIORE RIENTRATO Upper boom extension retracted sensor 2
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel

QUADRO GENERALE
General panel

QUADRO GENERALE
General panel



QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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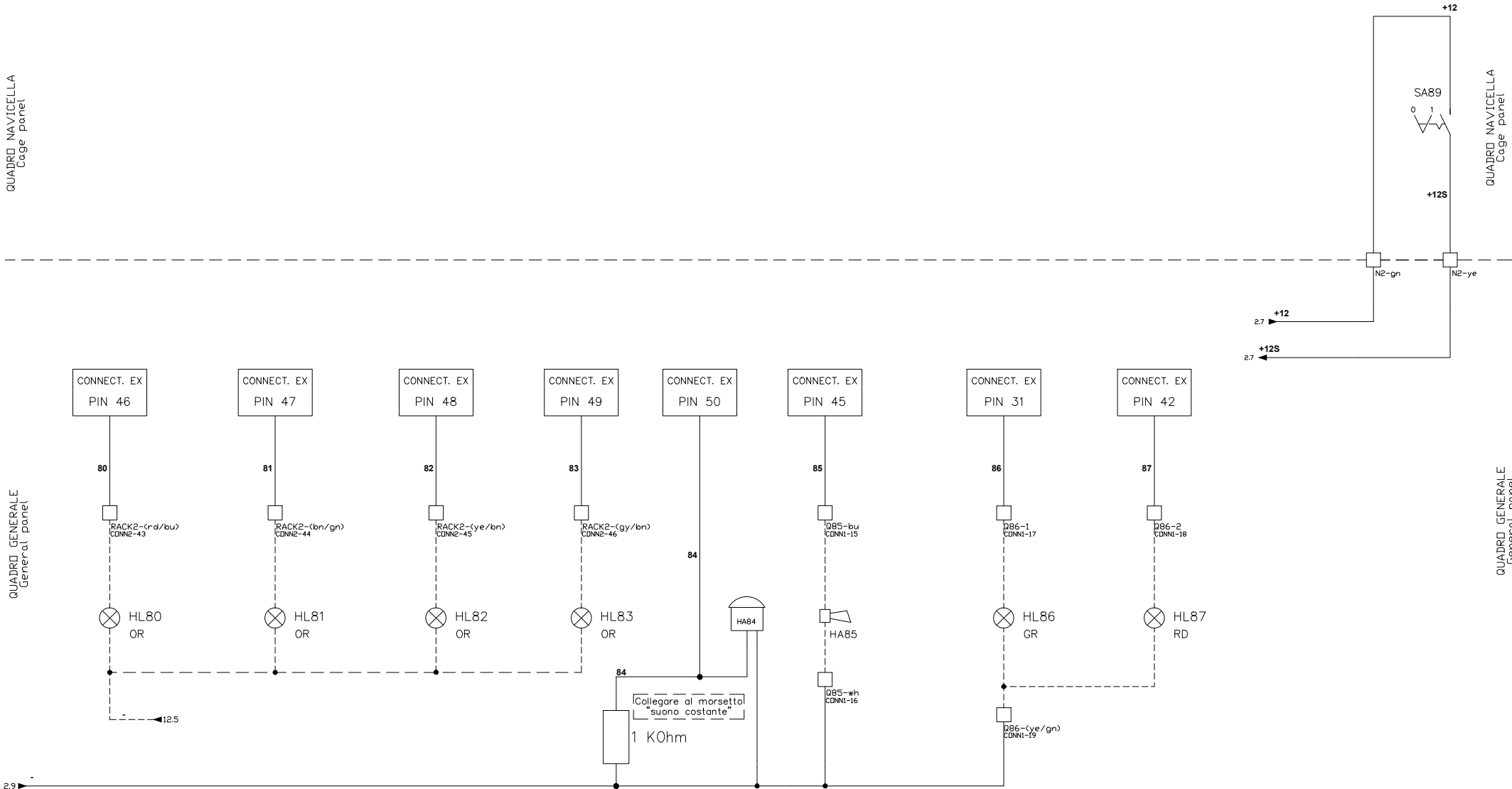
SPIA STABIL. 1 A TERRA Stabilizer 1 on ground lamp	SPIA STABIL. 2 A TERRA Stabilizer 2 on ground lamp	SPIA STABIL. 3 A TERRA Stabilizer 3 on ground lamp	SPIA STABIL. 4 A TERRA Stabilizer 4 on ground lamp	COMANDO SEGNAL. ACUSTICA A TERRA Acoustic signal command	CLACSON Acoustic adviser	SEGNAL. MACCHINA RICOVERATA Machine completely closed signal	SEGNAL. SOVRACC. e RIBALTAMENTO Overload and tipping signal		SELETTORE DIESEL/220V 220V/Diesel Selector
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

QUADRO GENERALE
General panel

QUADRO NAVICELLA
Cage panel

QUADRO GENERALE
General panel

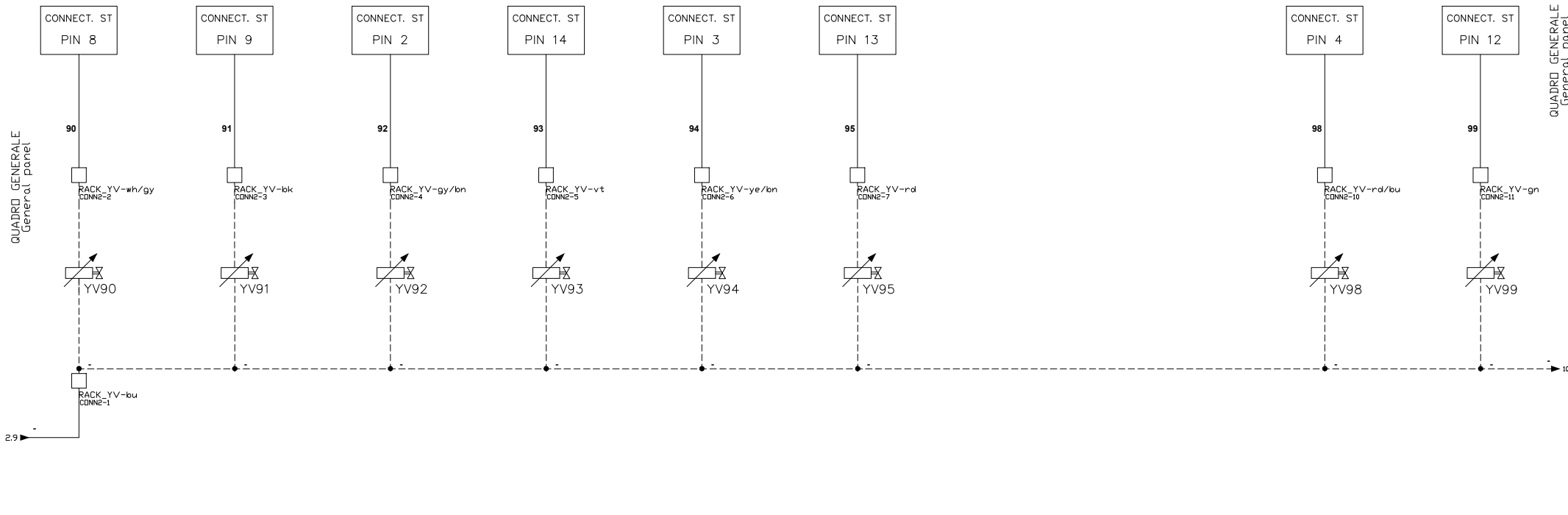


COMANDO PROPORZ. TRAS. CING. SX AVANTI Left track forward proportional comm.	COMANDO PROPORZ. TRAS. CING. SX INDIETRO Left track backward proportional comm.	COMANDO PROPORZ. SALITA STABIL. 1 Stabilizer 1 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 1 Stabilizer 1 lowering proportional comm.	COMANDO PROPORZ. SALITA STABIL. 2 Stabilizer 2 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 2 Stabilizer 2 lowering proportional comm.			COMANDO PROPORZ. SALITA STABIL. 3 Stabilizer 3 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 3 Stabilizer 3 lowering proportional comm.
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel

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QUADRO GENERALE
General panel

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General panel

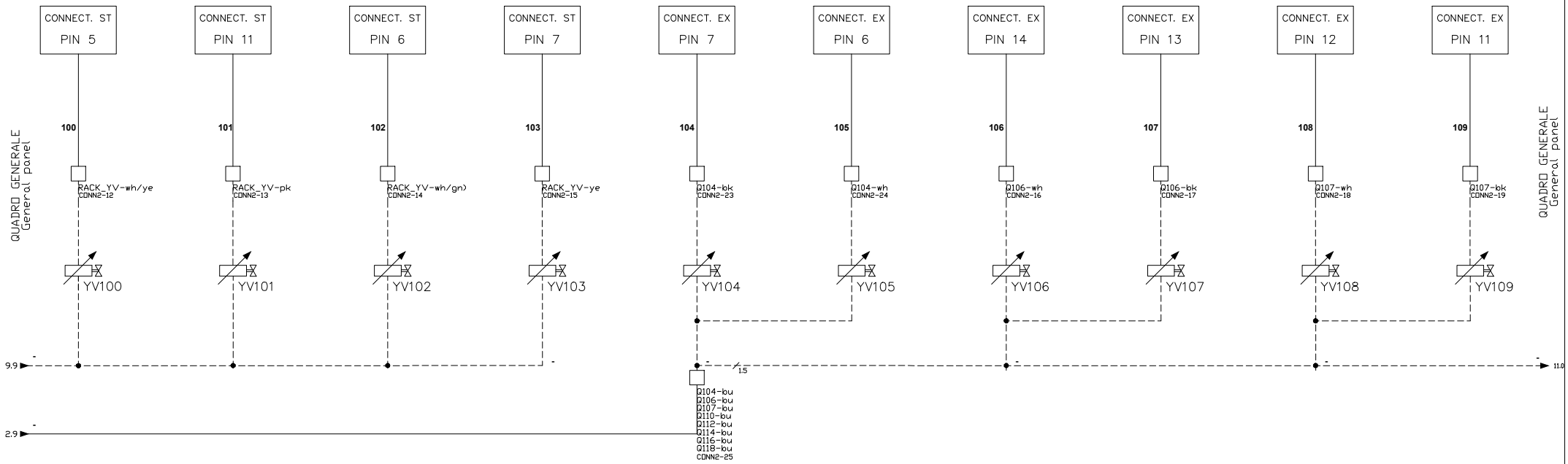
COMANDO PROPORZ. SALITA STABIL. 4 Stabilizer 4 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 4 Stabilizer 4 lowering proportional comm.	COMANDO PROPORZ. TRAS. CING. DX AVANTI Right track forward proportional comm.	COMANDO PROPORZ. TRAS. CING. DX INDIETRO Right track backward proportional comm.	COMANDO PROPORZ. ROTAZ. CESTA DESTRA Cage right rot. proportional comm.	COMANDO PROPORZ. ROTAZ. CESTA SINISTRA Cage left rot. proportional comm.	COMANDO PROPORZ. DISCESA BRACCIO INF. Lower boom lowering proportional comm.	COMANDO PROPORZ. SALITA BRACCIO INF. Lower boom raising proportional comm.	COMANDO PROPORZ. DISCESA BRACCIO SUP. Upper Boom lowering proportional comm.	COMANDO PROPORZ. SALITA BRACCIO SUP. Upper Boom raising proportional comm.
0	1	2	3	4	5	6	7	8	9

COMANDO PROPORZ. LEVEL.CESTO AVANTI Cage level forward proportional comm.	COMANDO PROPORZ. LEVEL.CESTO INDIETRO Cage level backward proportional comm.
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QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel

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QUADRO GENERALE
General panel

QUADRO GENERALE
General panel

COMANDO PROPORZ. RIENTRO SFILO SUP. Upper Extension-in proportional comm.	COMANDO PROPORZ. USCITA SFILO SUP. Upper Extension-out proportional comm.	COMANDO PROPORZ. DISCESA JIB Jib closing proportional comm.	COMANDO PROPORZ. SALITA JIB Jib opening proportional comm.	COMANDO PROPORZ. ROT. COLONNA DX Column rotation left proportional comm.	COMANDO PROPORZ. ROT. COLONNA SX Column rotation right proportional comm.	COMANDO PROPORZ. RIENTRO SFILO INF. Lower Extension-in proportional comm.	COMANDO PROPORZ. USCITA SFILO INF. Lower Extension-out proportional comm.	VALVOLA SCARICO MOVIMENTI AEREI Dump valve for aerial movements	
0	1	2	3	4	5	6	7	8	9

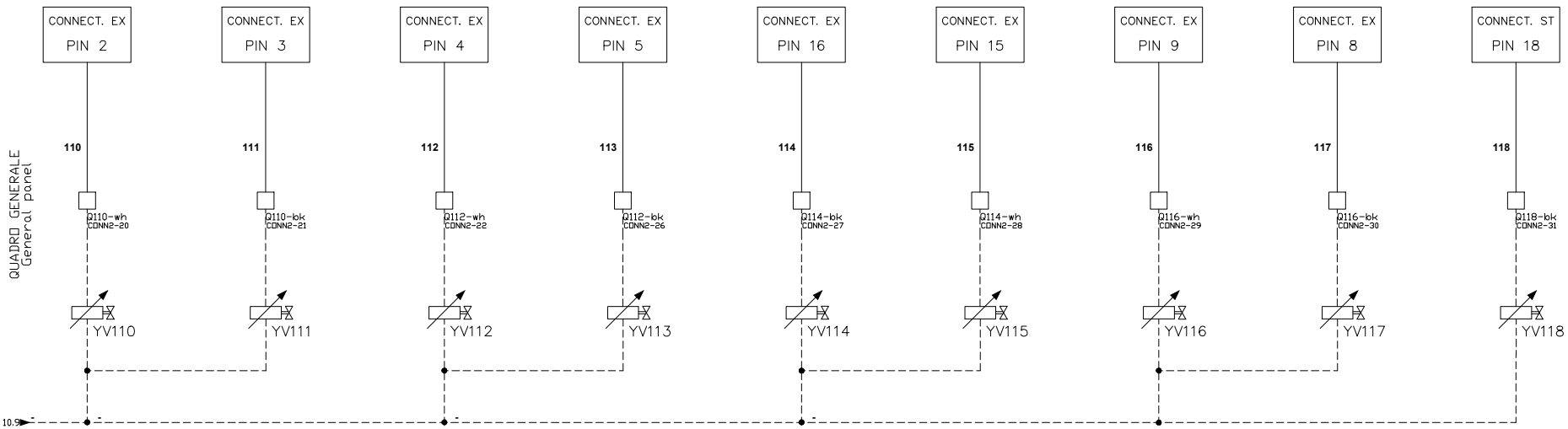
QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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QUADRO GENERALE
General panel

QUADRO GENERALE
General panel



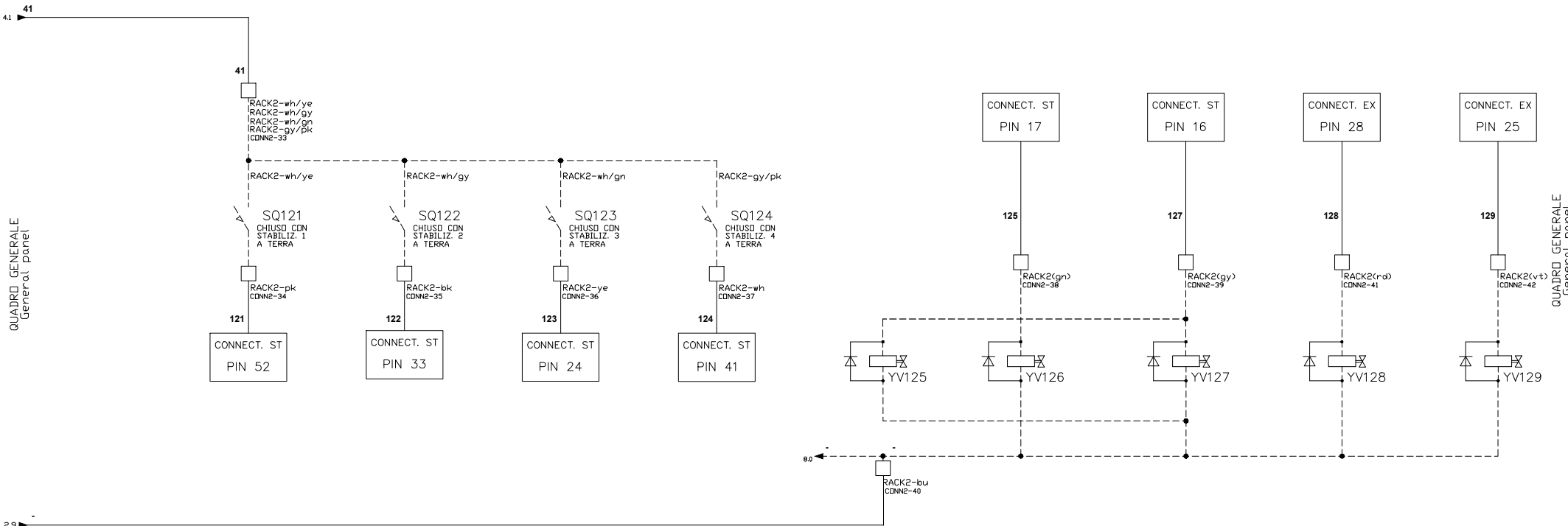
	SEGNALE PIEDE 1 A TERRA Stabilizer 1 on ground signal	SEGNALE PIEDE 2 A TERRA Stabilizer 2 on ground signal	SEGNALE PIEDE 3 A TERRA Stabilizer 3 on ground signal	SEGNALE PIEDE 4 A TERRA Stabilizer 4 on ground signal	COMANDO VALVOLA SCAMBIO CARRO DX/MOV. AEREI Chassis(right)/Aereal movem. exchange valve comm.	COMANDO VALVOLA SCARICO Cingolo Sinistro (singolo elem.) Left crawlers (single element) dump valve YV126	COMANDO VALVOLA SCARICO Cingolo Destro+Stab. Right crawlers+Stab. dump valve	COMANDO VALVOLA RADD. VELOCITA' CINGOLI Double speed valve command	VALVOLA RADDOPPIO MOVIMENTI AEREI Double speed valve for aerial part
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

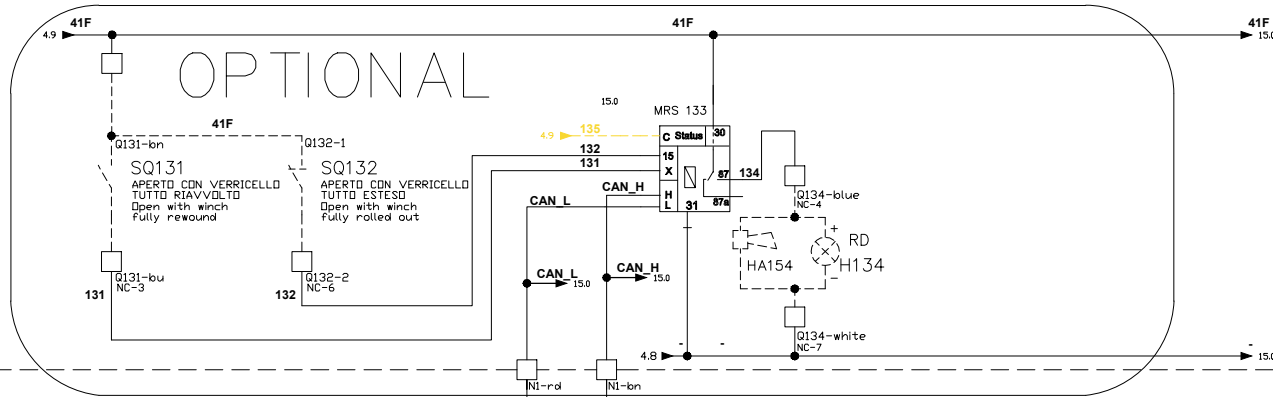
QUADRO NAVICELLA
Cage panel

QUADRO GENERALE
General panel

QUADRO GENERALE
General panel

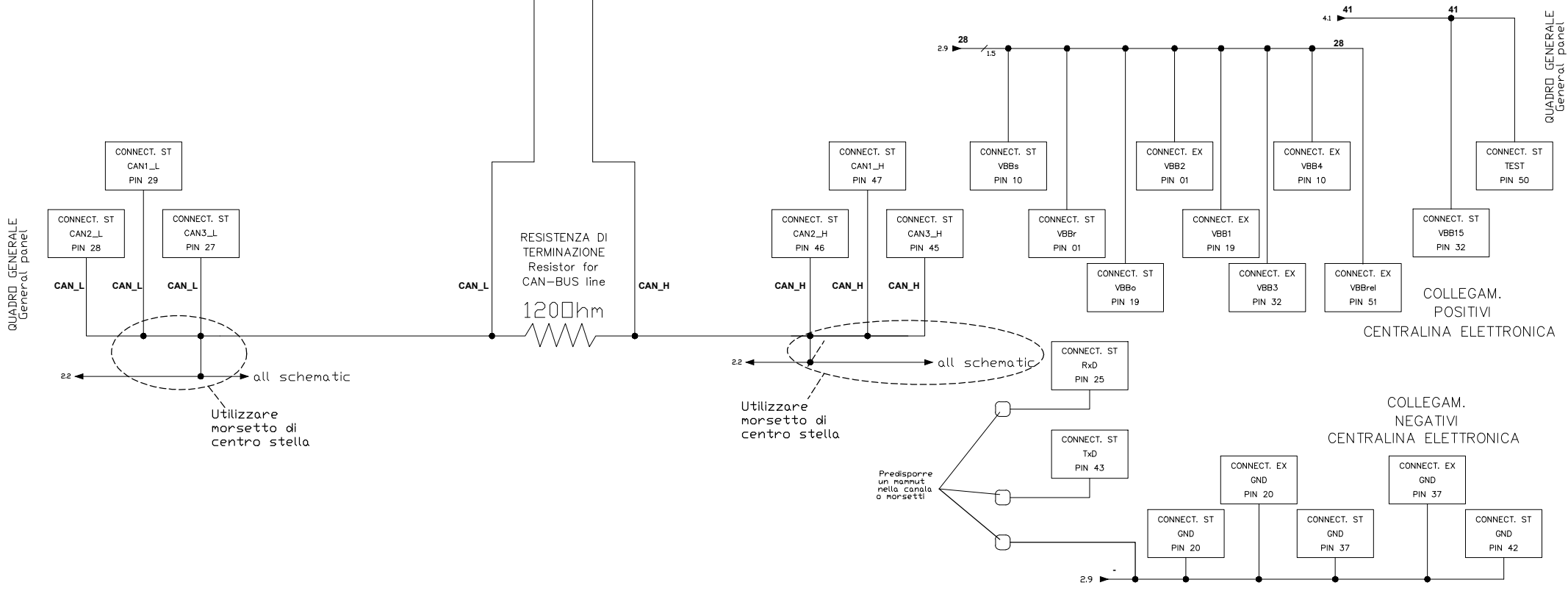


LIVELLO BASSO LINEA CAN-BUS CAN BUS (low side)	MICRO VERRICELLO TUTTO RIAVVOLTO Winch fully rewound	MICRO VERRICELLO TUTTO ESTESO Winch fully rolled out	CENTRALINA PER VERRICELLO Electronic card for winch	SPIA e CICALINO SOVRACC. VERRICELLO Winch overload lamp and buzzer		LIVELLO ALTO LINEA CAN-BUS CAN BUS (high side)	POSITIVI ALLA CENTRALINA Positive to the electronic board		NEGATIVI ALLA CENTRALINA Negative to electronic board
0	1	2	3	4	5	6	7	8	9



QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel



QUADRO GENERALE
General panel

QUADRO GENERALE
General panel

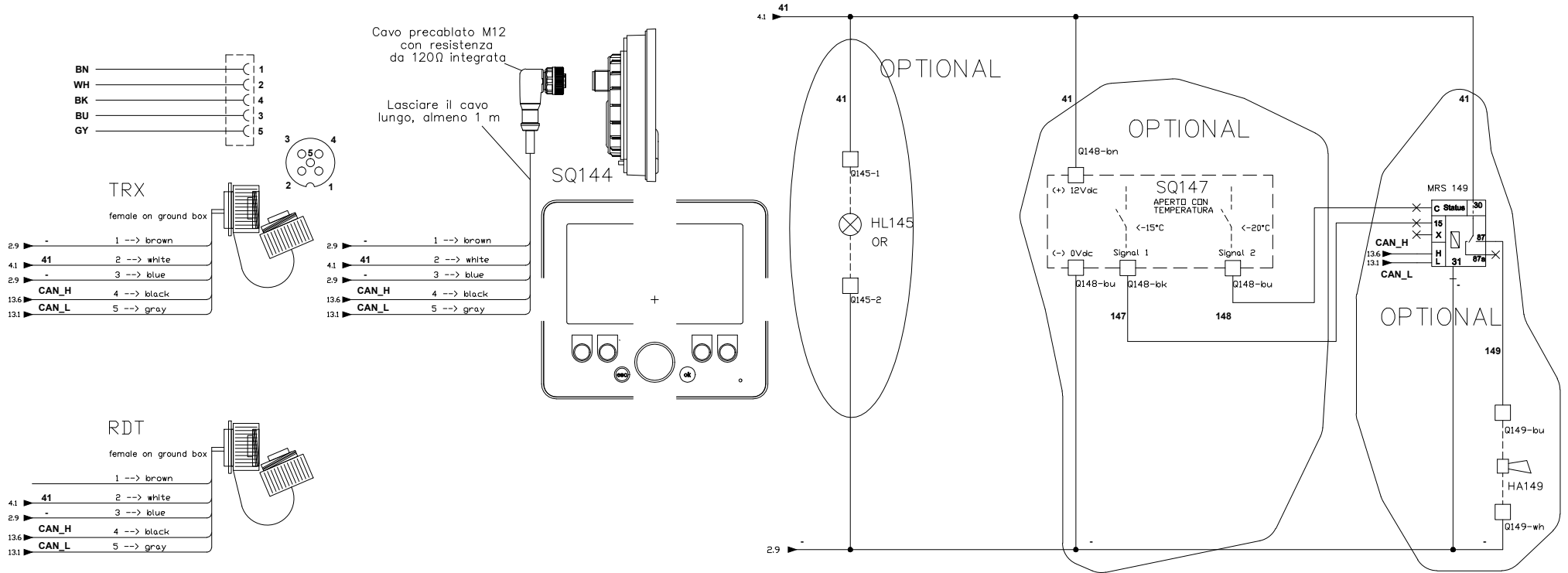
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CONNESSIONE CENTRALINA --> PC PC --> ELEC. BOARD CONNECTION		DISPLAY			LAMP. MACCHINA IN LAVORO Machine on work beacon		MODULO e SENSORE TEMPERATURA AMBIENTE Module + Ambient temperature sensor		SEGNAL. ACUSTICA MOVIMENTI Movements acoustic signal
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

QUADRO NAVICELLA
Cage panel

QUADRO GENERALE
General panel

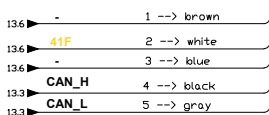
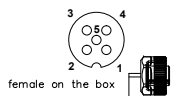


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CONNESSIONE SENSORI CAN-BUS CAN-BUS sensors connection				INDICATORE PLANARITA' (X/Y) Planarity indicator (X/Y)	SENSORE ANGOLO RALLA Slew ring angle sensor	SENSORE ANGOLO BRACCIO INF. Lower boom angle sensor		SENSORE ANGOLO BRACCIO SUP. Upper boom angle sensor	
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA
Cage panel

CAN_SENS2

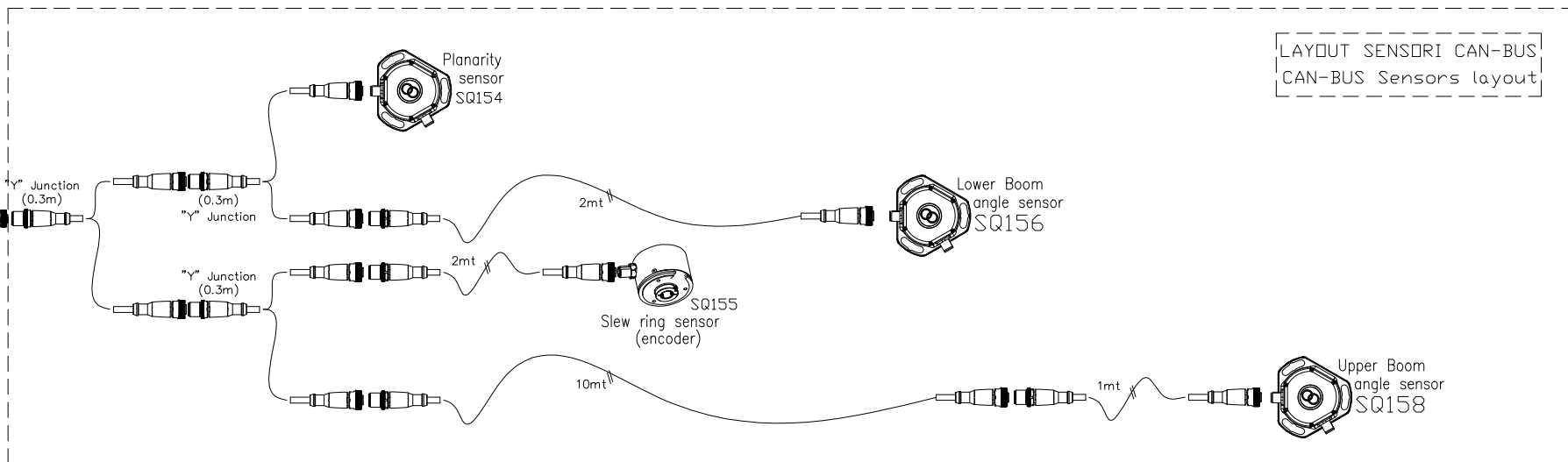
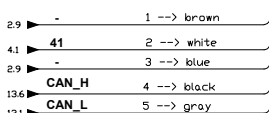
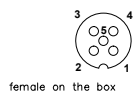


QUADRO NAVICELLA
Cage panel

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QUADRO GENERALE
General panel

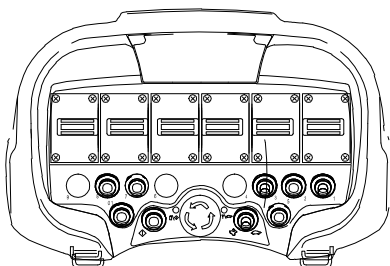
CAN_SENS



QUADRO NAVICELLA
Cage panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE
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QUADRO GENERALE

0	1	2	3	4	5	6	7	8	9
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Pulsantiera fissa (Fixed remote control)

CBL_A

Pin no.	Colour/Function
1	Brown / DV1+
2	White/Power supply+12/24Vdc
3	Blue / GND / CAN_GND
4	Black / CAN_HIGH
5	Grey / CAN_LOW

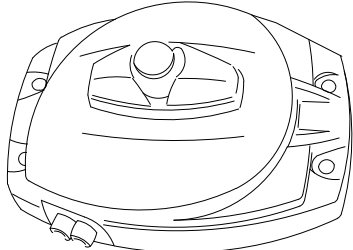
CBL_B

Pin no.	Colour/Function
1	Brown / Data
2	White / GND
3	Blue / RS232 TX
4	Black / RS232 RX
5	Grey / Supply output/CAB+

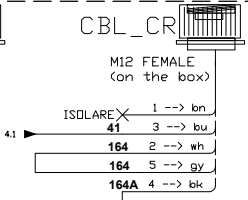
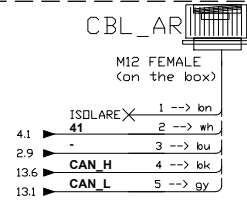
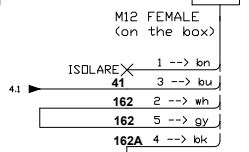
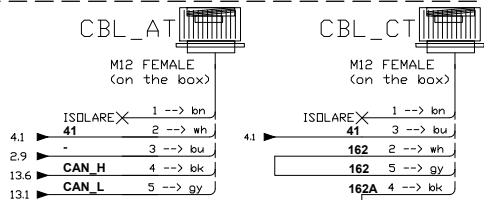
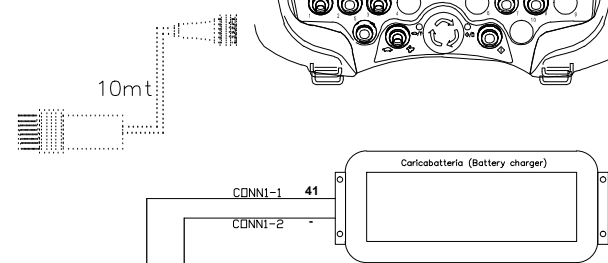
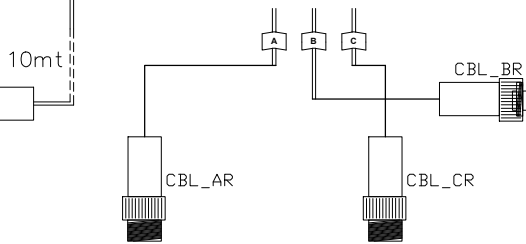
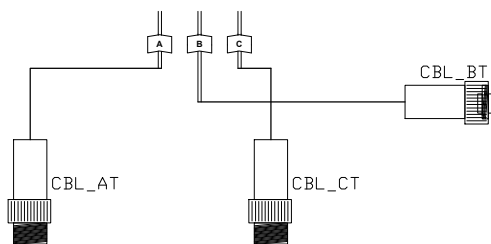
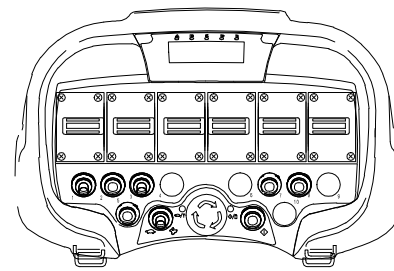
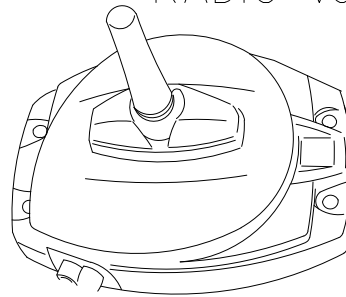
CBL_C

Pin no.	Colour/Function
1	Brown / DV2+
2	White / LOOP1_OUT
3	Blue / LOOP1_IN
4	Black / LOOP2_OUT
5	Grey / LOOP2_IN

TELE version G3

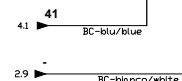


RADIO version G3



CONNECT. ST
PIN 38

CONNECT. ST
PIN 21



LEGENDA COMPONENTI

Components legend

0	1	2	3	4	5	6	7	8	9
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- SB40 => Emergency push-button (cage position)
- SB40A => Emergency push-button (ground position)
- SA40 => General Key
- SB45 => Footswitch (OPTIONAL)
- SP43 => Basket load cell (doubled inside)
- SQ60 => Pressure sensor
- SQ121 => Microswitch staibilizer 1 "on ground"
- SQ122 => Microswitch staibilizer 2 "on ground"
- SQ123 => Microswitch staibilizer 3 "on ground"
- SQ124 => Microswitch staibilizer 4 "on ground"
- SQ144 => Display (Ground panel)
- SQ154 => Planarity sensor (chassis level)
- SQ155 => Turret angle sensor (doubled inside)
- SQ156 => Lower boom angle sensor (doubled inside)
- SQ158 => Upper boom angle sensor (doubled inside)
- SB66 => Emergency Rescue button
- KM65 => Main contactor for 230V electric motor

HOW TO FIND COMPONENTS IN THE SCHEMATICS

Example:

